TIPS ON SOLVENT WELDING WITH

Oatey® SOLVENT CEMENT

DIRECTIONS FOR SOLVENT WELDING PLASTIC PIPE AND FITTINGS

1. Square pipe ends and remove all burrs and dirt.
2. Check dry fit of pipe and fitting. Pipe should easily go 1/3 of the way in. If pipe bottoms, it should be snug.
3. Clean pipe and fitting with Purple Primer or an IAPMO-listed primer. Use cleaner ONLY for ABS, Copper Tube Size (CTS) CPVC, Schedule 20 PVC, and thin wall bell end PVC pipe.
4. Note Special Instructions when solvent welding in extremely cold or hot weather (below 40°F or above 85°F.)
5. When solvent welding pipe over 3", recommended applicator is a natural bristle brush 1/2 the pipe diameter, i.e., 3" brush for 6" pipe.
6. Apply thin coat of cement to fitting, avoid puddling inside. Make certain the entire socket surface is covered. Be especially careful not to "overcoat" thin wall or bell end pipe.
7. Apply liberal coat of cement to pipe. Make certain entire pipe surface is covered to the appropriate socket depth.
8. Assemble parts QUICKLY! CEMENT MUST BE FLUID–if not fluid, recoat both parts.
9. Push pipe FULLY into fitting using a 1/4 turning motion until pipe bottoms.
10. Hold pipe and fitting together for 30 seconds–wipe off excess with cloth. Completed joints should not be disturbed until they have cured sufficiently to withstand handling.
11. Keep container closed when not in use.
12. Do not pressure test until cement is fully cured. SEE CHART.

HANDLING

Do not use near flame source. To avoid over exposure, ensure ventilation by opening doors and windows. If adequate ventilation cannot be provided, wear a NIOSH approved respirator for organic solvents. If inhaled and headache, dizziness or intoxication are experienced, get fresh air and seek medical attention if ill feelings persist. Wash thoroughly after use and before eating. If swallowed, **DO NOT INDUCE VOMITING**, call a physician or poison control center immediately. In case of eye and skin contact, immediately flush with water for 15 minutes and seek medical attention if irritation persists. For more information, obtain copy of MSDS from distributor. Long-term, repeated over exposure to solvents may cause damage to brain and nervous system, reproductive and respiratory systems, mucous membranes, liver, and kidneys. **KEEP OUT OF REACH OF CHILDREN.**

CHECK LIST OF THINGS TO DO...DO

- keep caps on cans of Oatey Cement at all times.
- store Oatey Cleaner, Primer and Cement in dry cool place.
- follow each step of the directions completely and in sequence.
- use furnished dauber applicator for pipe through 3".
- When working with pipe 4" and up, use a natural bristle the diameter.
- work quickly when applying cement and assembling.
- remember that weather and temperature affect drying time. SEE CHART.
- ... allow 15 minutes to 4 hours before handling joints after assembly.
- ... obtain MSDS from distributor.

CHECK LIST OF THINGS NOT TO DO...DON'T:

- ... use Oatey Cement without first using Oatey Cleaner or Primer.
- ... mix Oatey Cleaner or Primer with Oatey Cement.
- ... use thickened or lumpy cement – THROW IT AWAY!
- ... allow excess cement to dry on pipe after assembly.
- ... handle joints immediately after assembly.
- ... allow dauber to dry out.

TECHNICAL INFORMATION: CEMENTING CPVC-PVC-ABS PLASTIC PIPE & FITTINGS

HANDLING OF OATEY CEMENT: Cement should have consistency of syrup or honey. If, due to prolonged exposure to air, cement in can becomes thick, chances are that a large portion of active solvent has evaporated. Remaining solvents will not bite into plastic surfaces and Cement is useless. DO NOT TRY TO RESTORE CEMENT BY STIRRING IN MORE CLEANER. It is false economy to attempt to salvage a few cents worth of cement at the expense of a string of leaky joints.

continued above...

Keep Cement can closed as much as possible to prevent loss of solvent by evaporation. If thick skin forms over surface due to prolonged air exposure, remove it and discard.

HOT WEATHER PROBLEMS AND SUGGESTIONS FOR CEMENTING PIPE IN HOT WEATHER:

A. Cool pipe by wiping with a damp rag. Evaporation of moisutre from pipe surface will lower its temperature several degrees. Dry before applying cement.
B. Wipe pipe with Oatey Cleaner or Primer first to start solvent etching action and als to cool pipe surface by evaporation of cleaner from surface.
C. Keep ends of pipe shaded from hot sun before cementing when possible. Keep fitting shaded also.
D. Cool cement – place in ice chest until ready to use.
E. Always apply cement to fitting socket first.
F. Get pipe into fitting as quickly as possible after applying cement.

Hot weather can also create serious expansion/contraction problems in laying long lines of Pipe 100 ft. in length may expand or contract approx. 3/4" during a 20°F temperature cha

COLD WEATHER PROBLEMS AND SUGGESTIONS FOR CEMENTING PIPE IN COLD WEATHER:

Cold weather difficulties might include:

— Moisture, snow, mud, dirt, etc., remaining on surface to be cemented.
— **Cement sets slowly** causing longer delay before moving or testing assembled line.
— Presence of slow-evaporating solvents in cement slows down the etching or solventing actior

Proper care in cement operation can overcome these problems. Wipe out fitting and pipe end wi clean rag. If ice or snow remains on surface, they can be cleaned with alcohol or Cleaner.

AFTER CEMENTING: Immediately following assembly of pipe to fittings, pipe line should not be moved or shifted in any way that would rupture or disturb cement formed between surfaces. In setting – and as solvent evaporates, cement goes from syrupy liquid, to muddy, thick, and doughy consistency, and finally to solid state. It is during doughy state, cement film must not be disturbed because it is too weak to prevent movement and too solid to flow back together again if shifted.

Do not attempt to speed setting by applying heat. Forced rapid drying will cause solvents to boil off, forming porosity, bubbles, and blisters in cement film. SEE CHART.

CEMENT REQUIREMENTS – NUMBER OF JOINTS PER PINT OF CEMENT BY PIPE SIZE

1/2" – 175	1-1/2" – 75	2-1/2" – 35	4" – 25	12" – 1
3/4" – 150	2" – 40	3" – 30	6" – 12	

Use the timetable guide below for cement setting times. The suggested times will be appreciably altered by humidity, socket fit, and temperature.

Temperature Range During Cure Period F° (C°)	Test Pressures for Pipe Sizes 1/2 to 1-1/4 in.		Test Pressures for Pipe Sizes 1-1/2 to 3 in.		Test Pressures for Pipe Sizes 3-1/2 to 5 in.		Test Pressures for Pipe Sizes 6 to 8 in.	
	Up to 180 psi (1240 kPa)	Above 180 to 370 psi (1240 to 2550 kPa)	Up to 180 psi (1240 kPa)	Above 180 to 315 psi (1240 to 2170 kPa)	Up to 180 psi (1240 kPa)	Above 180 to 315 psi (1240 to 2170 kPa)	Up to 180 psi (1240 kPa)	Above 180 to 315 psi (1240 to 2170 kPa)
60 to 100 (15 to 40)	1 h	6 h	2 h	12 h	6 h	18 h	8 h	24 h
40 to 60 (5 to 15)	2 h	12 h	4 h	24 h	12 h	36 h	16 h	48 h
20 to 40 (-7 to 5)	6 h	36 h	12 h	72 h	36 h	4 days	3 days	9 days
10 to 20 (-15 to -7)	8 h	48 h	16 h	96 h	72 h	8 days	4 days	12 days
Colder than 10 (-15)	**Extreme care should be exercised on all joints made where pipe, fittings or cement is below 10°F**							

For Emergency First Aid Help, call 1-303-623-5716 COLLECT.